

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of processing a substrate comprising:

growing a first ultra-thin oxide layer on a surface of the substrate to consume defects

in a surface region of the substrate;

etching away at least a portion of the first ultra-thin oxide layer to remove at least

some of said consumed defects from the substrate and reveal a subsurface of said substrate;

growing a second ultra-thin oxide layer on said subsurface of said substrate to

consume more defects in said surface region of the substrate; and

etching away at least a portion of the second ultra-thin oxide layer to remove at least

some of said consumed more defects from the substrate;

monitoring said surface region of the substrate; and

repeatedly growing an addition ultra-thin oxide layer to consume additional defects

and etching the additional oxide layer to remove the consumed additional defects based on

said monitoring of said surface region.

Claim 2 (Original): The method of Claim 1, wherein said growing first and second

ultra-thin oxide layers each comprise growing an oxide layer having a thickness of between

approximately 5 Å and approximately 15 Å.

Claim 3 (Cancelled).

Claim 4 (Currently Amended): The method of Claim 1, Claim 3, wherein said monitoring comprises using high-resolution transmission electron microscopy (HRTEM) data.

Claim 5 (Original): The method of Claim 1, wherein the substrate comprises silicon.

Claim 6 (Original): The method of Claim 1, wherein the substrate comprises at least one of silicon and a silicon alloy.

Claim 7 (Original): The method of Claim 1, further comprising forming an additional layer on one of said first and second oxide layer using at least one of a thin film deposition process, an oxidation process, and an implantation process.

Claim 8 (Original): The method of Claim 1, wherein at least one of said etching steps comprises a dry vapor etch process.

Claim 9 (Original): The method of Claim 1, wherein at least one of said etching steps comprises a wet etch process.

Claim 10 (Original): The method of Claim 1, wherein at least one of said etching steps comprises using a gas including at least one of a hydrogen containing gas, a fluorine containing gas, and a chlorine containing gas.

Claim 11 (Original): The method of Claim 10, wherein said using a gas comprises using a gas comprising at least one of HF, H₂, F₂, and C₁F₃.

Claim 12 (Original): The method of Claim 1, further comprising processing a plurality of substrates including said substrate, wherein each of said growing steps and each of said etching steps is performed on each of said plurality of substrates.

Claim 13-16 (Cancelled).

Claim 17 (New): The method according to Claim 1, wherein said monitoring includes the imaging of a surface of the substrate after removal of one of said ultra-thin oxide layers.

Claim 18 (New): The method according to Claim 5, wherein said monitoring includes the imaging of a silicon lattice at a surface of the substrate after removal of one of said ultra-thin oxide layers.

Claim 19 (New): The method of Claim 17, wherein said imaging comprises using high-resolution transmission electron microscopy (HRTEM) data.

Claim 20 (New): The method of Claim 18, wherein said imaging comprises using high-resolution transmission electron microscopy (HRTEM) data.